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From: Jennifer Martin [mailto:jmartin@prbo.org]
Sent: Monday, September 24, 2007 12:22 PM
To: 'Mary Gleason'
Cc: 'Evan Fox'; MLPAComments
Subject: RE: regional profile comments
September 21, 2007

RE: Regional Profile of the North Central Coast Study Region, May 7, 2007Draft

Please accept our apologies in sending these comments to you well after the comment period. We hope that they will still be of use to you and others working on Phase II in the North Central Coast.

3.0 Ecological Setting

Page 6 – You may want to add Ainley and Boekelehide's *Seabirds of the Farallon Islands* (1990) to the list of primary sources as it includes information on the Gulf of the Farallones ecosystem and oceanography, as well as birds.

3.1.10 Oceanographic Habitats

Page 23 – After, "In addition, oceanographic processes and cross-shelf transport can significantly affect recruitment patterns of fish and invertebrates in intertidal and nearshore communities (Farrell et al 1991; Roughgarden et al 1991; Wing et al 1995).", we suggest adding:

Poor oceanographic conditions can affect food web dynamics well into the future, in addition to impacts to individual species.

After, "Strong upwelling and upwelling shadows south of major headlands can affect settlement of invertebrates, with crabs and urchins settlement correlated with relaxation events along the coast north of Point Reyes (Wing et al 1995)." we suggest adding:

Additionally, headlands and their resulting upwelling shadows can have direct impacts on breeding seabirds, with leeward foraging seabirds showing less among-year variability in diet than those foraging in windward waters (Robinette et al. in press). [Robinette, D.P., J. Howar, W.J. Sydeman, and N. Nur. Spatial patterns of recruitment in a demersal fish as revealed by seabird diet. Marine Ecology Progress Series. In Press.]

3.1.11 Rocks and Islands

Page 25 – In the description of the Farallon Islands, please change the first paragraph to read,

"The Farallon Islands archipelago is comprised of four island groups located 28 miles west of San Francisco and 20 miles south of Point Reyes." … Twelve species of seabirds, including over 300,000 individuals, breed on the islands, including Leach's storm-petrel, the Ashy storm-petrel,

Double-crested cormorant, Brandt's cormorant, Pelagic cormorant, Black oystercatcher, Western gull, Common murre, Pigeon guillemot, Cassin's auklet, Rhinoceros auklet, and Tufted puffin (USFWS 2002)." (removed Fork-tailed storm-petrel)

Also, please add, "Pelagic cormorants, pigeon guillemots, Brandt's cormorants, and Cassin's auklets forage in significant densities within state waters around the islands (Jahncke, PRBO 2007)." [Jahncke, J., M. Elliot, C. Rintoul, D. Jongsomjit, B. Saenz, and W. Sydeman. 2007 Farallon marine bird and mammal distribution atlas. Unpublished report. PRBO Conservation Science, Petaluma, CA]

In the next paragraph, after, "At least 33 species of marine mammals visit the waters adjacent to the Farallon Islands, including the federally endangered blue, humpback, fin, sei, right, and sperm whales, and six pinnipeds breed or haul out on the islands, including the Northern fur seal, Guadalupe fur seal, Steller's sea lion, California sea lion, Harbor seal and Northern elephant seal (Karl et al 2001, USFWS 2002)" we suggest adding:

Gray whales and California Sea lions are observed foraging in significant densities within state waters around the islands (Jahncke, PRBO 2007). [Jahncke, J., M. Elliot, C. Rintoul, D. Jongsomjit, B. Saenz, and W. Sydeman. 2007 Farallon marine bird and mammal distribution atlas. Unpublished report. PRBO Conservation Science, Petaluma, CA]

3.2.1 Species likely to benefit from MPAs

Page 27 – We believe it is important to note in the Regional Profile that MPAs can help to maintain productive food webs that support commercial and non-commercial species. We suggest adding the following to this section:

Finally, it should be noted that species not taken recreationally or commercially can benefit from MPA establishment. Protecting relatively sedentary, commercially valuable species that support the food web (in both juvenile and adult life history stages) will have direct, positive impacts on the populations of higher trophic level species, such as seabirds and marine mammals.

3.2.3 Special Status Species

Page 30 – In the first paragraph, after, "In addition, marine mammals are protected under the Marine Mammal Protection Act and migratory seabirds and shorebirds in the study region are protected under the Migratory Bird Treaty Act." we suggest adding:

However, the above mentioned acts do not protect the prey of seabirds and marine mammals.

Also in this paragraph, the last sentence is misleading regarding the mobility of these animals. We suggest replacing it with the following:

While many seabirds and marine mammals are highly mobile, there are many species that are short ranging and highly dependent on nearshore resources, especially during the breeding season when they are confined to central place foraging. These species will benefit directly from MPA establishment. For example, pelagic cormorants, Brandt's cormorants, pigeon guillemots, black oystercatchers, and harbor seals all have short foraging ranges (less than 20 km) while breeding and all feed heavily on sedentary demersal and benthic species.

Page 35 – In the section on harbor seals, please add that the Farallon Islands are a breeding site for harbor seals.

Page 36 – In the section on northern fur seals, please change this section to read, "Today, relatively dense aggregations of these fur seals (1 seal per km2) are found on the Farallon Islands, where they have two potential breeding harems and their numbers are growing. The colony on the Farallon Islands is only the second colony for this species south of Alaska. Fur seals feed on sablefish, rockfish, anchovies, squid, and crabs and (Karl et al 2001)."

In the section on cetaceans, please add that the Farallon Islands annually supports a small population (1-3 individuals) of resident grey whales throughout the spring and summer that are always found close to shore.

10.0 Summary by Subregion

Page 152 – Please add harbor seal and California sea lion to the listing of Marine Mammal Rookeries.

Please add PRBO Conservation Science to the list of Research Institutions, and to the list of organizations with monitoring sites on Southeast Farallon Island.